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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,060	03/01/2002	Caidian Luo	HARD1.033A	4640

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KNOBBE MARTENS OLSON & BEAR LLP  
2040 MAIN STREET  
FOURTEENTH FLOOR  
IRVINE, CA 92614

EXAMINER

MARCANTONI, PAUL D

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/090,060

Applicant(s)

LUO ET AL.

Examiner

Paul Marcantoni

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

Applicant's arguments filed 4/20/05 have been fully considered but they are not persuasive.

35 USC 102/103

Claims 1-8 remain rejected under 35 U.S.C. 102( b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Naji (US Patent No. 6,030,447).

*Note: Ries '196 and Chumbley et al. '480 and Lundin have been withdrawn as a result of applicants' amendment to claim 1 requiring cementitious binder and/or aggregate which are not components within the teachings of these references.*

Naji et al. '447 teach a cement composition comprising cellulose fibers and dispersant thus anticipating the instant invention. (See claims 13 and 16). It is the examiner's position that even if not anticipated, a dispersant's function is to disperse and reduce interparticle/fiber attraction and this would still have been accomplished thus rendering applicants' invention obvious to one of ordinary skill in the art. Further, it would have been an obvious design choice for one of ordinary skill in the art to use a cationic, non-ionic or ionic dispersant as all are functionally equivalent.

Obviousness Double Patenting:

Claims 1-8 remain rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-52, 1-72, and 1-78 of U.S. Patent Nos. 6,676,745 B2 (Merkley et al.), 6,506,248 B1 (Duselis et al.), or 6,346,146 (Duselis et al.). Although the conflicting claims are not identical, they are not patentably distinct from each other because all references teach a composition comprising

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cellulose fiber and dispersant which would inhibit bonding between hydroxyl groups of fibers and thus would have been obvious to one of ordinary skill in the art. Merkley et al. '745 B2 seems to be the strongest reference. However, the other references also teach the presence of cellulose fibers and dispersant which would mix and result in the properties as set forth in claims 1-8.

Response:

102/103:

Regarding Naji, the applicants agree that Naji does teach adding dispersants yet do not agree that this reference teaches treatment with the dispersant to lead to reducing inter fiber hydrogen bonding. The applicants would agree that a dispersant and a dispersing agent mean the same thing and are synonymous. The applicants are referred to Hawley's Condensed Chemical Dictionary for the definition of dispersing agent on page 435. A dispersing agent is defined as a **surface active agent** (ie a "surfactant") added to a suspending medium to promote uniform and maximum separation of extremely fine solid particles, often of colloidal size (See provided definition which is one page 435). If a dispersing agent is a surfactant, as it is known that it is, it is evident then that the dispersant of Naji '447 would result in "at least portion of the fibers being at least partially treated with it to form chemically treated cellulose fibers with improved dispersibility, wherein the dispersant binds hydroxyl groups on the fiber surface so as to substantially inhibit bonding between hydroxyl groups of different

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fibers, thereby reducing inter-fiber hydrogen bonding so that the chemically treated fibers can be more readily dispersed in the building material.

The applicants are referred to their own claim 6 which teaches that the dispersant can be a cationic, anionic, or a non-ionic surfactant and they disclose the same teaching on page 8 of their specification. This is all categories of surfactants (cationic, anionic, and non-ionic) so Naji, because dispersants are surfactants and would have to fall into one of these categories as all types of surfactants are one of these. Naji thus teach a dispersant that would also have the same properties of binding hydroxyl groups on the fiber surface.... etc. as claimed by applicants for their instant invention.

Obviousness-Type Double Patenting:

The same line of reasoning regarding the fact that a dispersant is a surface active agent or surfactant (See again the definition of a dispersing agent from Hawley's Condensed Chemical Dictionary) and would also meet the physical properties of binding hydroxyl groups on the fiber surface.... etc. Thus, applicants' argument is not convincing over ODP for the same reasons provided here and above in the arguments over the Naji '447 reference. This rejection stands.

This is a RCE of applicant's earlier Application No. 10/090,060. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL**

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even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni whose telephone number is 571-272-1373. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paul Marcantoni  
Primary Examiner  
Art Unit 1755